Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 13, and ending at page 1, line 23, with the following amended paragraph:

In the conventional technology, polysilicon (Poly-Si) is mainly used as an electrode material which is formed on a silicon substrate. As a gate insulation film provided between the silicon substrate and the polysilicon electrode material, a silicon oxide (SiO_2), a silicon oxynitride (SiON), and a silicon nitride (Si_3N_4) are used. As a related matter, in order to increase the capacity (proportional to ε/d, where ε is relative permittivity, and d is film thickness ~~pressure.~~) of the gate insulation film, the thickness of the gate insulation film (SiO_2 (ε=3.9)) is conventionally reduced.

Please replace the paragraph beginning at page 1, line 24, and ending at page 1, line 29, with the following amended paragraph:

According to Japanese Laid-Open Patent Application No. 2000-294550, a method is disclosed wherein a gate insulation film having an equivalent oxide thickness of 1 nm or less ~~a dioxide layer approximately equal in thickness to at most 1 nm~~ is provided by performing an oxidation, nitriding, and oxynitriding directly on the surface of the wafer W by plasma processing.

Please replace the paragraph beginning at page 2, line 5, and ending at page 2, line 15, with the following amended paragraph:

A conventional High-K film is made from oxide; however, oxidizing species are ~~an oxide seed film is~~ indispensable when [[in]] forming an oxide film. Further, it is necessary to perform a high heating treatment in an atmosphere of the oxidizing species ~~oxide seed~~ or inert gas species ~~seed~~ so as to stabilize the crystallinity of the oxide. As a result, SiO_2 (or a metal mixture including Si, 0, and a High-K material) is formed on the Si surface or on the surface of the oxide High-K film. Accordingly, layers having a low relative permittivity are formed

serially. Therefore, the original object of increasing the capacity cannot be achieved.

Please replace the paragraph beginning at page 5, line 24, and ending at page 6, line 5, with the following amended paragraph:

On the upper side of the treatment container 11, an open part corresponding to the silicon wafer W on the substrate holding board 12 is provided. The above open part is closed by ~~attached~~ a dielectric board 13 which includes quartz, Al_2O_3, AlN, and Si_33N_4. On the upper side of the dielectric board 13, (outside of the treatment container 11) a plane antenna 14 is disposed. On the plane antenna 14, plural slots are provided so that an electromagnetic wave which is supplied from a wave guide 18 can permeate via the slots. On the further upper side (outside) of the plane antenna 14, a wavelength shortening board 15 and the wave guide 18 are provided. On the outside of the treatment container 11, a cooling plate 16 is disposed so as to cover the upper side of the wavelength shortening board 15. In the cooling plate 16, a coolant path 16a in which a coolant flows is provided.

Please replace the paragraph beginning at page 8, line 9, and ending at page 8, line 20, with the following amended paragraph:

The microwave having a few GHz generated by the electromagnetic wave generator is supplied to the treatment container 11 via the wave guide 18. The microwave is introduced into the treatment container 11 via the plane antenna 14 and the dielectric board 13. The microwave excites the plasma, and thus a nitride radical is generated. The temperature of the wafer is less than 500°C when performing a plasma treatment thereon by using the plasma as above generated. The high density plasma which is generated by ~~exciting~~ the microwave in the treatment container 11 forms a nitride film Si_3N_4 on the surface of the silicon substrate 100.